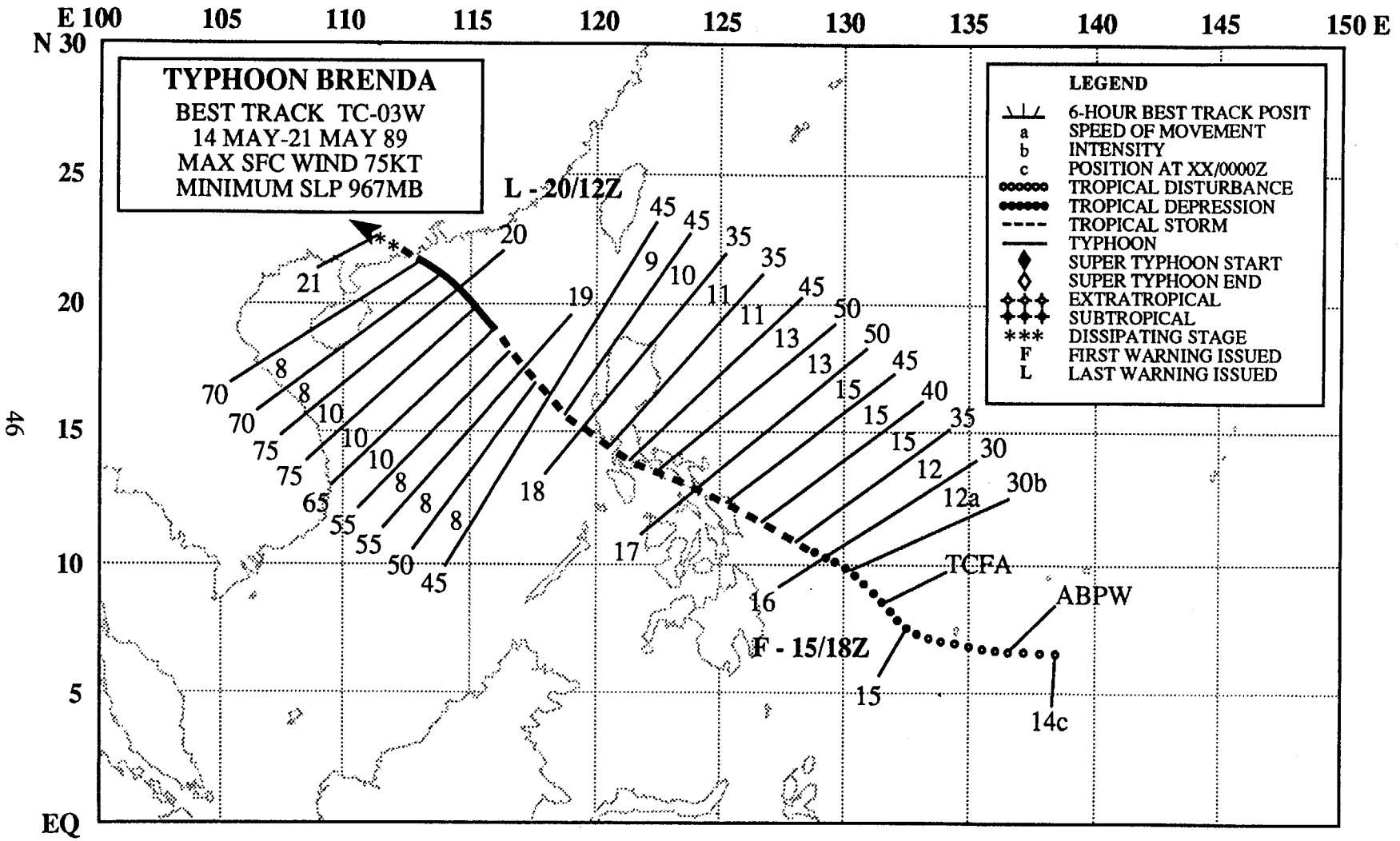
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TYPHOON BRENDA
BEST TRACK TC-03W
14 MAY-21 MAY 89
MAX SFC WIND 75KT
MINIMUM SLP 967MB
L - 20/12Z
F - 15/18Z
TCFA
ABPW
LEGEND
6-HOUR BEST TRACK POSIT
a SPEED OF MOVEMENT
b INTENSITY
c POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
SUBTROPICAL
*** DISSIPATING STAGE
F FIRST WARNING ISSUED
L LAST WARNING ISSUED

TYPHOON BRENDA (03W)

The first of two typhoons to form in May, Brenda generated in the western Caroline Islands, moved northwestward across the central Philippine Islands, and then made landfall in China. It was the second of eleven tropical cyclones to cross the Philippines during the year.

After spawning Super Typhoon Andy in April, the tropics remained relatively quiet for two weeks. Then, on 14 May, the Significant Tropical Weather Advisory mentioned an area of broad convection with weak turning in the monsoon trough south of Yap. Continued organization of clouds and winds prompted the issuance of a Tropical Cyclone Formation Alert at 150730Z and the first warning at 151800Z. The system was upgraded to tropical storm at 160000Z.

Brenda (Figure 3-03-1) tracked across Samar and southern Luzon, exiting at the tip of the Bataan Peninsula. Closest point of approach to both NAS Cubi Point and Manila was 18 nm (35 km). Cubi Point's barograph recorded a minimum sea level pressure of 989 mb at 171800Z. To the north, Clark AB (WMO 98327) experienced maximum gusts of 38 kt (20 m/sec) and received minor damage. News reports indicated at least four water craft sank, and that more than 50 people were killed or missing in the Philippine Islands. In addition,

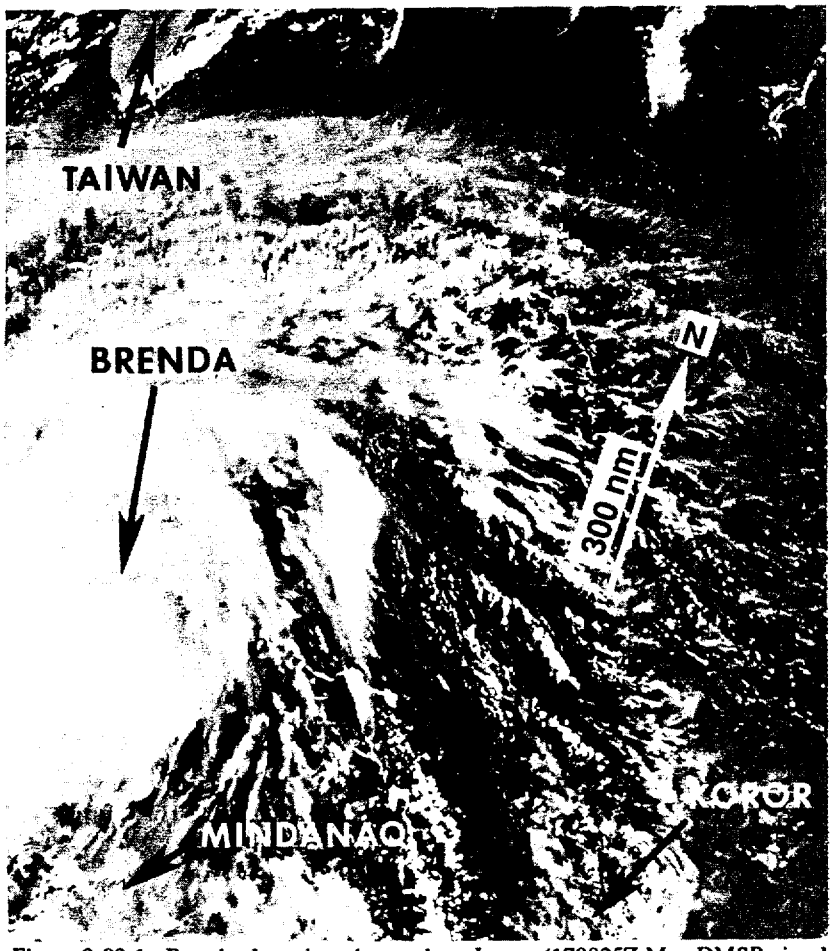

Figure 3-03-1. Brenda slams into the southern Luzon (170025Z May DMSP visual imagery).

thousands were left homeless, and communications and power were significantly disrupted.

Once in the South China Sea and again over warm water, Brenda (Figure 3-03-2) continued northwestward and intensified, reaching typhoon status at 191200Z. Meanwhile, the NOGAPs prognostic series forecast a mid-latitude short wave to move north of the tropical cyclone, indicating potential for recurvature. JTWC did forecast recurvature at 181200Z, based on an apparent northward motion of the circulation center on the nighttime infrared satellite imagery. Low confidence radar signatures also indicated a northward motion. Subsequent fixes based on visual imagery returned the cyclone's track to a northwestward direction. In turn, JTWC returned forecasts to a northwest motion and into the coast of China, west of Hong Kong.

Typhoon Brenda reached a maximum intensity of 75 kt (39 m/sec) at 191800Z before passing within 81 nm (150 km) of Hong Kong at 201200Z. The Royal Observatory at Hong

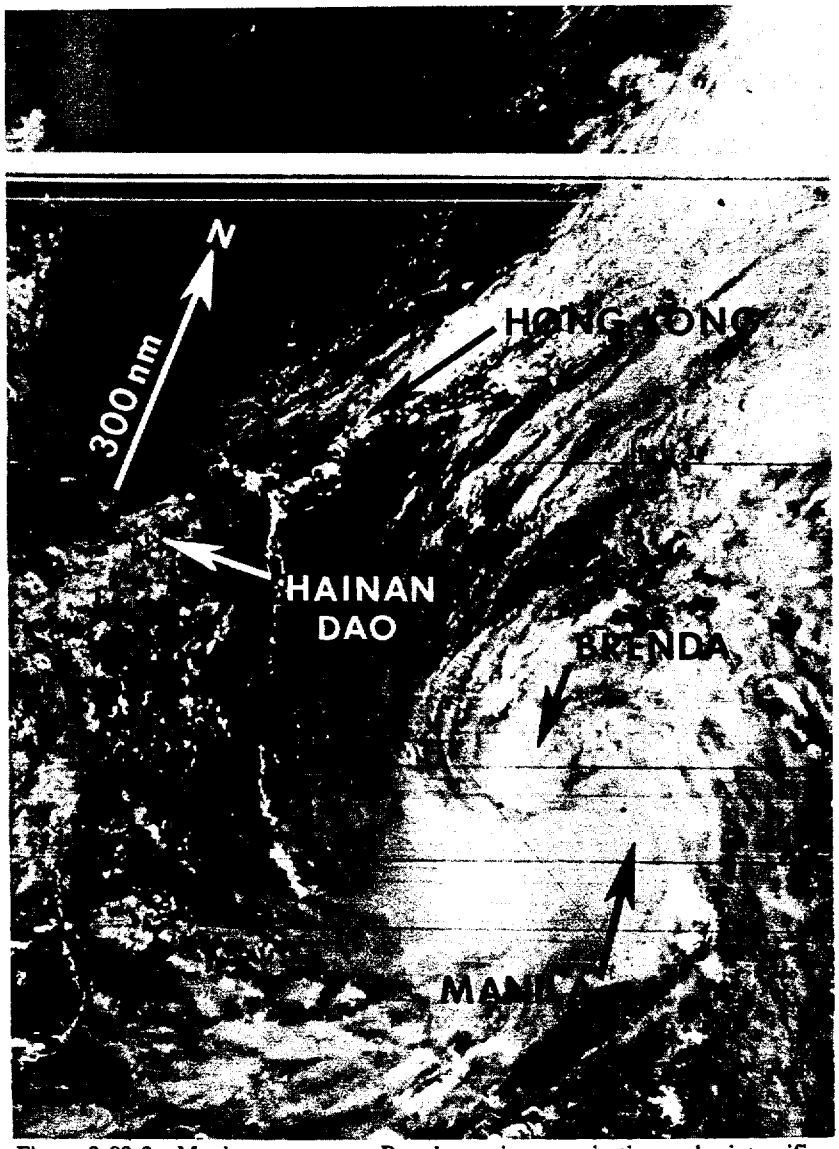

Figure 3-03-2. Moving over water, Brenda regains organization and reintensifies (180146Z May DMSP visual imagery).

Kong reported maximum gusts of 54 kt (28 m/sec), a minimum sea-level pressure of 995 mb and 17 inches (441 mm) of rain during the six days that Brenda and its enhanced southwest flow affected the area.

Brenda (Figure 3-03-3) made landfall on the south coast of China at 201400Z and dissipated over land in the Guangdong Province. Preliminary reports indicated that at least 84 people perished in southern China, and that widespread flooding due to the heavy rains damaged about 3.5 million acres (1.4 million hectares) of land. In Hong Kong six people were killed, one was missing, and the heavy rains resulted in landslides, floods and large losses in livestock and fish farming.

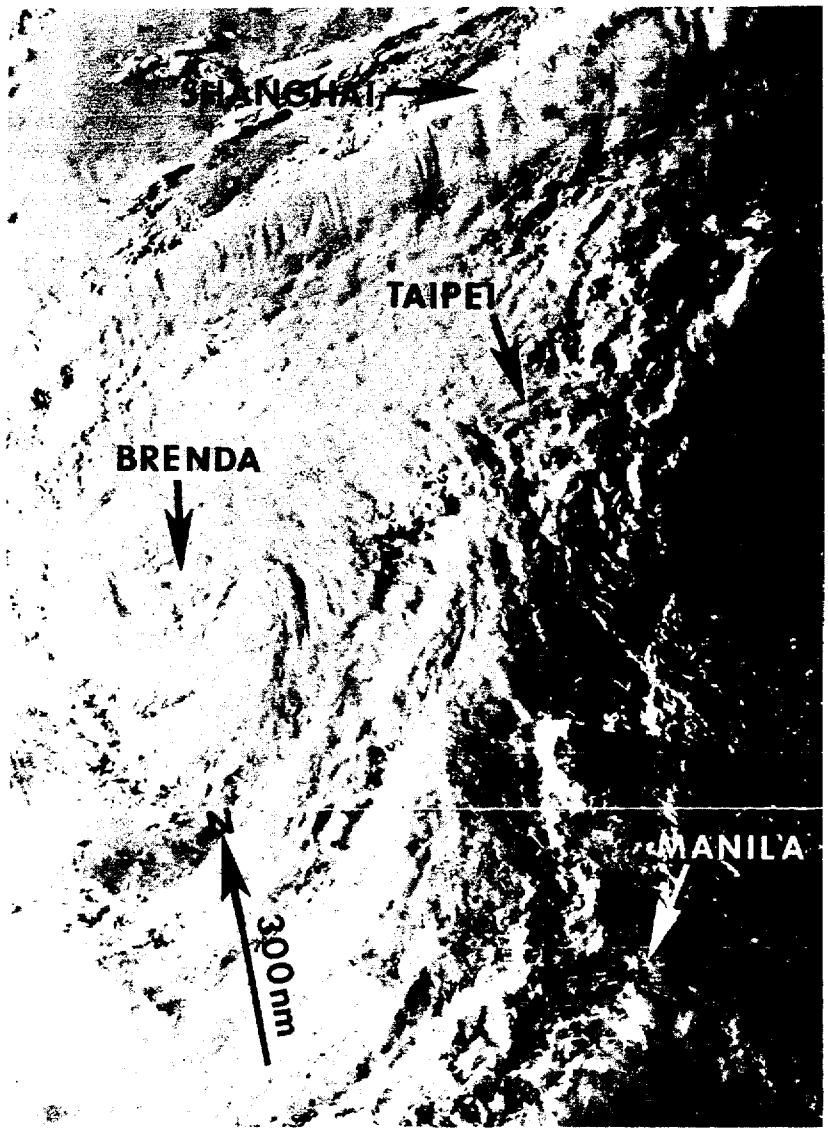

Figure 3-03-3. This brightly lit low sun angle photo shows Brenda's convective spirals as the typhoon approaches the coast. The sun is low to the west, and its rays scatter forward, through the aerosols, and out to space. The gray, milky-looking areas around the periphery of Brenda reveal the presence of aerosols in the lower layer of the atmosphere that are being trapped, and concentrated, as a the result of subsidence (201021Z DMSP visual imagery).